

I claim:

1. A brass-wind instrument comprising:
 - a mouthpiece;
 - a lead pipe in fluid communication with said mouthpiece;
 - a monoblock valve body in fluid communication with said lead pipe further comprising a plurality of valve chambers;
 - a plurality of valves dispersed in said valve chambers;
 - a plurality of elongation tubes in fluid communication with said monoblock valve body to elongate an air column therein;
 - an exit tube; and
 - a bell in fluid communication said exit tube.
2. The brass-wind instrument of claim 1 wherein each valve comprises an unimpeded air channel.
3. The brass-wind instrument of claim 1 wherein each elongation tube interfaces with said monobody valve block at an angle substantially perpendicular to the axis of said valve chamber.
4. The brass-wind instrument of claim 1 wherein said mouthpiece is gapless.
5. The brass-wind instrument of claim 4 wherein said gapless mouthpiece comprises a negatively shaped conical shank.

6. The brass-wind instrument of claim 5 wherein said negatively shaped conical shank comprises an inner diameter equal to the inner diameter of the entrance to said leadpipe.

7. The brass-wind instrument of claim 6 wherein said leadpipe has a positive conical shape.

8. The brass-wind instrument of claim 1 wherein the valve channel in said monobody valve block further comprises valve guider.

9. The brass-wind instrument of claim 1 wherein said monobody valve block comprises a threaded region at the top of each valve cylinder to complementarily receive a valve cap.

10. The brass-wind instrument of claim 1 wherein said monobody valve block comprises a threaded region at the bottom of each valve cylinder to complementarily receive a valve resonator.

11. A gapless mouthpiece comprising a cylinder having a bell-shaped first end and a negative conically-shaped shank comprising a second end, wherein said second end is received in a lead pipe of a brass-wind instrument.

12. The gapless mouthpiece of claim 11 wherein the inner diameter of said second end has a smallest dimension equal to the inner diameter of said leadpipe.

13. A monoblock valve body for a musical instrument comprising: a single piece body further comprising a plurality of valve cylinders for receiving valves and a plurality of ports and interfaces in fluid communication with said valve cylinder, wherein said ports and interfaces are substantially perpendicular to the axis of said valve cylinder.

14. The monoblock valve body of claim 13 wherein said parts are in further fluid communication with tubes.

15. The monoblock valve body of claim 14 wherein said tubes comprise a lead pipe, a plurality of elongation tubes, and an exit tube.

16. The monoblock valve body of claim 13 wherein said interfaces provide fluid communication between valves.

17. The monoblock valve body of claim 13 wherein said valves are unimpeded.

18. The monoblock valve body of claim 13 wherein said valves further comprise valve guides.

19. The monoblock valve body of claim 13 wherein at

least one valve casing further comprises a threaded region at the top portion of said valve casing to retain a valve piston.

[00054] 20. The monoblock valve body of claim 13 wherein at least one valve casing further comprises a threaded region at the top portion of said valve casing to receive a valve cover.